Docket No. AMDP771US H1310

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re **PATENT** application of:

Applicant:	Prasad P. Padiyar et al.
Application No.:	10/701,092
For:	DYNAMIC INTER PACKET GAP GENERATION SYSTEM AND METHOD
Filing Date:	November 4, 2003
Examiner:	Mohammad Sajid Adhami
Art Unit:	2416

REPLY BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicant submits this Reply Brief in response to the Examiner's Answer mailed April 29, 2009, in connection with the appeal of the above-identified case.

A. REJECTION OF CLAIMS 1, 2, 4, 6, 8-11, and 13-21 UNDER 35 U.S.C. § 102(b)

Claims 1, 8, 10, 13 and 17 were rejected under 35 U.S.C. §102(b) as being anticipated by Ramakrishnan (US 5,418,784). The remaining claims depend on claims 1, 10 and 13, respectively. A reversal of the rejection of claims 1, 2, 4, 6, 8-11, and 13-21 is requested for at the least the following reasons.

i. The Ramakrishnan parameters used to determine a dynamic IPG value are not programmable as disclosed in the invention of claims 1, 10, and 13.

The invention of claims 1, 10 and 13 states that a dynamic determiner generates an IPG value that is a function of a collision count **and programmable parameters**. It is respectfully submitted that Ramakrishnan **does not "expressly or inherently describe" using programmable parameters** to generate an IPG value, therefore, the reference does not anticipate the patent claims, nor is the identical invention shown in as complete detail as is contained in the claim.

The claims 1, 10 and 13 detail generating IPG values that are a function of collision counts **and programmable parameters,** which do include in the alternate (as described by the examiner's response, p 18) at least one of: a range of IPG values; a convergence time; and a stable state time. The examiner argues that "[t]he term programmable is a broad term and does not carry a specific meaning in the art" (page 17, para. 2 in Response to Arguments). The respondents respectfully disagree. The term programmable in the art field of "multiplex communications" is commonly referred to something that is capable of being programmed, where "being programmed" refers to a result of programmed instruction, where instructions are input to something that is being programmed. Several dictionaries further back up this definition (*see e.g.*, Collins Essential Dictionary, 2nd Edition, 2006; Random House Dictionary, 2009).

Further, on page 4, lines 21-24, the specification of the instant application defines what is meant by "programmable parameters" when it states, "these multiple stations can be controlled and programmed by a network coordinator that sets programmable

parameters for dynamic IPG generation of each station so as to even further improve overall network throughput." The specification is clearly defining programmable parameters as those that a network coordinator can set (program), for differing implementation of a network. Further, on page 15, lines 21-23 (and page 17, lines 2-3), the specification states, "[t]he method employs programmable parameters so [it] can be tailored to differing implementations." Again, this reference shows that programming the parameters can be used to tailor the system, as is a common use of programmable parameters in the art. Additionally, on page 17, lines 10-12, the specification states, "the programmable parameters are set or programmed," further describing how the parameters are "programmed."

While the examiner argues that the Ramakrishnan reference discloses programmable parameters, in fact, ***the parameters of Ramakrishnan used to determine a dynamic IPG are not programmable***, even within a broadest meaning of the term "programmable" in the art. In Ramakrishnan, a first parameter, the "IPG interval," is described as being **automatically** selected (not programmable under the definition) by "progressively increas[ing] the IPG interval … until another node has successfully transmitted a packet of data" (column 6, lines 43-46). Ramakrishnan "then **computes** … the extended IPG as a linearly increasing value given by 9.6+10(N+1) μs" (column 8, lines 41-43), where second and third parameters, "collision counts" and "slot time," are both automatically detected (not programmable) and automatically input to the above formula to dynamically determine an IPG value. As explicitly stated in the Ramakrishnan reference, there is no way for these parameters to be programmed, as they are all automatically detected, or preset for the invention ("The value [IPG range value] is limited to a maximum of 51.2 microseconds where the range is from 9.6 to 51.2 microseconds" (Co1.8 lines 38-45)). These teachings indicate that the alleged parameters of a dynamic IPG value determination are not programmable in any way as defined by the applicant's specification and by the term used in the art.

Additionally, the Examiner states that "so the IPG value generated is a function of the IPG range, amongst other parameters" (page 18, para. 1). The respondents are not

alleging that the Ramakrishnan reference does not utilize "parameters" to calculate a dynamic IPG value, merely that the Ramakrishnan parameters are not programmable. Also, the Examiner states that "with respect to the independent claims 1, 10, and 13, the programmable parameters are written in the alternative language, only requiring one of the listed parameters to meet the claim limitation of generating an IPG value as a function of a programmable parameter." (page 18, para. 1). The respondents are not alleging otherwise. Because none of the Ramakrishnan parameters are programmable (as described above), it is irrelevant whether or not the programmable parameters of independent claims 1, 10, and 13 are written in the alternative language.

In response to the argument that "the IPG value in Ramakrishnan is automatically generated and not programmable as defined by the specification," the examiner alleges that "the features upon which applicant relies (i.e., a programmable IPG value) are not recited in the rejected c1aim(s)[, A]lthough the claims are interpreted in light of the specification, limitations from the specification are not read into the claims." Further, that "the IPG value in Ramakrishnan is ... computed as a linearly increasing value based on the number of collisions experienced by 9.6+ 10(N+1).)" (page 18-19). As described above and in the Examiners statement, the dynamic IPG value is calculated automatically by the formula described, where the value increases in an automatic step-wise manner base on automatic detection of collision counts. Further, the respondents are not attempting to add limitations to the claims, merely defining the term programmable, which is also a common term of art in the field.

As described above, **the alleged Ramakrishnan parameters are not <u>programmable parameters</u> as defined by the applicant's specification**. Therefore, the Ramakrishnan reference does not use the programmable parameters as described in claims 1, 10 and 13 to modify the function when generating an IPG value.

Therefore, Ramakrishnan does not disclose all aspects set forth in claims 1, 10, and 13. Accordingly, a reversal of the rejection of claims 1, 10, 13 and their respective dependent claims is respectfully requested.

ii. Ramakrishnan's "slot time" and "time after collision" are not equivalent to the "stable state time" and "convergence time" of the invention of claims 1, 10, and 13.

The Examiner alleges that the applicant's claimed "stable state time" and "convergence time" programmable parameters are equivalent to Ramakrishnan's "slot time" and "time after collision" non-programmable parameters (page 19, first full para.). The respondents respectfully disagree.

"Stable state time" is defined in the applicant's specification as "a period for which IPG values obtained remains programmed in the network device without modification" (page 15, lines 29-31). For example, an IPG value having a lowest collision count is programmed as the IPG value for a network device, which remains in use by the network device for a stable state time period; after which, another dynamically generated IPG value is obtained (see summary, page 4, lines 14-17). In contrast, Ramakrishnan's "slot time" is defined as "the maximum round-trip propagation time for the network, i.e. the time to propagate a data packet from one end of the network to the other, and back" (column 1, lines 52-55). Clearly the "slot time" of the cited reference refers to a time it takes for a data to travel from one end of the network to the other and back. Therefore the "slot time" of the cited reference is not even close to a "stable state time" as claimed.

The Examiner alleges that "the terms stable state time and convergence time are broad terms and do not carry a specific meaning in the art" (page 19, 2nd full para.). Even if this were accepted, the terms "stable state" and "slot" have no similarity in the broadest meaning. However, the Examiner further alleges that "[t]he slot time of Ramakrishnan reads on the claim limitation of a stable state time [because] [t]he IPG value in Ramakrishnan can remain stable for a slot time because during a transmission if a collision does not occur, the IPG value will not change. The fact that the IPG value in Ramakrishnan could possibly remain stable for a slot time has no correlation to a slot time being equivalent to a stable state time, which is the issue. The slot time in Ramakrishnan is a term of art in this field defined by the IEEE 802.3 standard, used as

a constant value for the system to define a "backoff time" for sending another data packet, where the "backoff time" can be a multiple of the slot time (see col.1, lines 44-59). The term "stable state time" is defined by the instant application as a time where the IPG value remains unchanged, having nothing to do with how long data travels. Even if the "stable state time" and "slot time" have a same value, it would be a mere coincidence as it would be for any two different variables, as they are not related when determining the dynamic IPG value.

Further, the Examiner alleges that the applicant's claimed "convergence time" programmable parameter is equivalent to Ramakrishnan's "time after collision." However, "convergence time" is defined in the applicant's specification as "the time period for which the dynamic determiner is permitted to obtain an improved IPG value" (page 12, lines 18-21), i.e., "the convergence time represents the time period in which the determiner looks for a new IPG value having a lowest number of collisions" (page 12, lines 19-21). In contrast, Ramakrishnan refers to a "time after collision," which is merely a time period after a collision. A time after collisions is meaningless when determining or programming a "convergence time" programmable parameter, which is merely a time period between identifying a new IPG value.

The Examiner alleges that "[t]he time after a collision in Ramakrishnan reads on the claim limitation of a convergence time because it is after a collision occurs that the IPG value is changed (Co1.3 lines 66-68 selecting an increased transmit-to-transmit IPG interval includes selecting a progressively larger interval after each collision). As stated above, just because two different variables might coincidently have a same value, it does not mean they define the same thing. Even if the "convergence time" was a period after a collision, it has nothing to do with how it is defined, it would be a mere coincidence, as it is not related to "time after collision" when determining the dynamic IPG value.

Additionally, the examiner notes that "the features upon which applicant relies … are not recited in the rejected claim(s)[, a]lthough the claims are interpreted in light of the specification, limitations from the specification are not read into the claims."

However, the applicant's are not asking for limitations to be read in the claims; rather, applicants merely request that the specification be employed to interpret what is meant by a word or phrase in a claim. "Where an explicit definition is provided by the applicant for a term, that definition will control interpretation of the term as it is used in the claim." Toro Co. v. White Consolidated Industries Inc., 199 F.3d 1295, 1301, 53 USPQ2d 1065, 1069 (Fed. Cir. 1999). Terms found in the applicants' claims are explicitly defined in the specification, as described above, in order to avoid confusion to those skilled in the art (*see* MPEP §§ 2111.01 and 2173.01).

As described above, **the alleged Ramakrishnan "slot time" and "time after collision" are not equivalent to the "stable state time" and "convergence time" as defined by the applicant's application**. Therefore, the Ramakrishnan reference does disclose each and every element described in claims 1, 10 and 13 to when generating an IPG value.

Therefore, Ramakrishnan does not disclose all aspects set forth in claims 1, 10, and 13. Accordingly, a reversal of the rejection of claims 1, 10, 13 and their respective dependent claims is respectfully requested.

iii. Ramakrishnan does not disclose or suggest using a convergence time, or a stable state time, for generating IPG values, as set forth in claims 8 and 17.

The invention of claims 8 and 17 state that a dynamically generated IPG value is a function of an IPG range, a step value, a convergence time, ***and*** a stable state time. The language of these claims provides that the dynamically generated IPG value is a function of all of the limitations described. In contrast, as described above, **Ramakrishnan does not "expressly or inherently describe" using either a convergence time, or a stable state time** for these functions. Further, **the identical invention is not "shown in as complete detail"** in Ramakrishnan, as contained in claims 8 and 17.

The Examiner alleges by the Final Office Action that, because the formula in Ramakrishnan calculates IPG values, this is analogous. However, the Ramakrishnan

formula merely includes an IPG range, a step value and does not include parameters for both a convergence time, and a stable state time as in the claims 8 and 17 (see Ramakrishnan, column 8, lines 38-45). The Examiner alleges that the applicant's "stable state time" programmable parameter is equivalent to Ramakrishnan's "slot time;" and that the applicant's "convergence time" programmable parameter is equivalent to Ramakrishnan's "time after collision." However, as described above, these programmable parameters are not equivalent. Therefore, because Ramakrishnan does not disclose all aspects set forth in claims 8 and 17, we respectfully request reversal of the rejection of claims 8 and 17.

B. REJECTION OF CLAIMS 3 and 22 UNDER 35 U.S.C. § 103(a)

Claims 3 and 22 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ramakrishnan. A reversal of the rejection of claims 3 and 22 is requested for at the least the following reasons.

The examiner did not address this issue in their Answer, however, as discussed above, **we do not concede that Ramakrishnan meets all the limitations of the parent claims**.

The Final Office Action alleges that the steady state time in these claims, is equivalent to Ramakrishnan's "time between detected collisions." The applicant's steady state time is defined in the specification as a period of time that an IPG value remains in the inter packet gap unit while it is being used for network collision recovery (*see* page 13, lines 15-19). In contrast, Ramakrishnan's "time between detected collisions" is merely a time period between detection of collisions. The applicants steady state time is not determined or related to a time period between detection of collisions, merely a time period in which an IPG value remains in the inter packet gap unit while it is being used for network collision recovery. Therefore the "time between detected collisions" of the cited reference is not a "steady state time" as claimed in claim 3 and 22. Therefore, there is no 35 U.S.C. §103(a) basis for rejection of claims 3 and

22 as alleged by the Final Office Action, and reversal of the rejection of claims 3 and 22 is respectfully requested.

C. CONCLUSION

For at least the above reasons, the claims currently under consideration are believed to be patentable over the cited references. Accordingly, it is respectfully requested that the rejections of the pending claims be reversed.

For any extra fees or any underpayment of fees for filing of this Brief, the Commissioner is hereby authorized to charge the Deposit Account Number 50-1733, AMDP771US.

Respectfully submitted,
ESCHWEILER & ASSOCIATES, LLC

/Thomas G. Eschweiler/
Thomas G. Eschweiler
Registration No. 36,981

National City Bank Building
629 Euclid Ave., Suite 1000
Cleveland, Ohio 44114
(216) 502-0600